

## PATENT ABSTRACTS OF JAPAN

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(54) ARRANGING METHOD, MODULATION AND DEMODULATION METHOD, AND  
DEMODULATION DEVICE FOR RLL CODE HAVING IMPROVED DC SUPPRESSION  
CAPABILITY

(57)Abstract:  
PROBLEM TO BE SOLVED: To suppress the DC component of a code-word stream by arranging the features of first parameter codes indicating a DC value in a code-word corresponding to the same source code in a pair of code groups and second parameter predicting a DSV transition direction of the next code-word reversely to each other.  
SOLUTION: A next code group (ncg) indicating the code group of a next code-word of a code-word in each code group tests end-zero(EZ). When  $EZ \leq$  the minimum run strength  $d-1$ , the device is set so that (ncg) indicates a second main code group or a DSV main code group, when  $d \leq EZ \leq$  cord-word duplication parameter (y), the device is set so that (ncg) indicates a second main code group, when  $y \leq EZ \leq$  the maximum run length (k), or  $d \leq EZ \leq (y)$  and a cord-word is not duplicated, the device is set so that (ncg) indicates the first or the second main code group, when it does not exceed (k), code selecting width is widened, and the DC suppression capability of a code is improved.

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